

1 Pg. 10, line 23, after "angle", delete " $\beta$ ".  
2 Pg. 10, line 23, after "applies", insert --corresponds--.  
3 Pg. 11, line 6, after "of", insert -- $\Delta Z/B$ --.  
4 Pg. 11, line 15, delete "[", insert -- $\beta$ --.  
5 Pg. 11, line 28, delete "span", insert --speed--.  
6 Pg. 12, line 14, delete "or", insert --of--.

### 7 IN THE CLAIMS

8 Amend claim 1 as rewritten below.  
9 Cancel claims 3-12 without prejudice.  
10 Add new claims 13-21 as written below.

#### 11 1. (once amended)

12 A wave reducing [and eliminating ship] hull for a vessel comprising:

13 a generally triangular hull having a pointed narrow bow portion and a stern portion having a beam  
14 wider than said bow portion;

15 said hull including generally rectilinear diverging sides extending substantially from said bow to said  
16 stern; [and]

17 said hull having a draft adjacent said bow deeper than the draft adjacent said stern[.]; and

18 said draft adjacent said bow being no greater than approximately thirty-three percent (33%) of said  
19 beam of said stern portion.

### 20 NEW CLAIMS

21  
22  
23  
24 13. A transonic hull with a displacement body portion below waterplane having in  
25 hydrostatic conditions a length, a bow, a stern, and a generally triangular waterplane with an apex  
26 adjacent said bow and a wide base adjacent said stern, said body portion having a first draft adjacent  
27 said bow substantially greater than a second draft adjacent said stern; said body portion being further  
28

1 characterized in having three principal longitudinal surface components, two of which form principal  
2 right and left side surface elements of said body portion, with the third principle longitudinal surface  
3 component forming a principal bottom surface element of said body portion.  
4

5 14. The structure of claim 13 in which said submerged body portion has a longitudinal  
6 axis at its waterplane, with athwarship crosssections perpendicular to said longitudinal axis, and with  
7 the projection of said crosssections in end view forming a single peripheral envelope of said  
8 crosssections with generally flat sides.  
9

10 15. A transonic hull with a displacement body portion below waterplane having in  
11 hydrostatic condition a length, a bow, a stern, and a generally triangular waterplane with a  
12 longitudinal axis, with an apex adjacent said bow and a wide base adjacent said stern, said body  
13 portion having a first draft adjacent said bow substantially greater than a second draft adjacent said  
14 stern, said body portion being further characterized in that the lateral edges of said waterplane  
15 adjacent and meeting at said apex are substantially rectilinear, and in that the angle included between  
16 each of said lateral edges and said longitudinal axis is an acute angle of approximately  $7^{\circ}$ .  
17

18 16. The structure of claim 15 further characterized in that the flow exit angle in side view  
19 established between a rearward undersurface portion adjacent said stern and a line parallel to  
20 waterplane intercepting the lower corner of said stern, being no greater than approximately the angle  
21 between said lateral edges adjacent said apex.  
22

23 17. The structure of claim 16 further characterized in that said flow exit angle is  
24 approximately 60% of the angle between said lateral edges adjacent said apex.  
25

26 18. A Transonic Hull having a submerged portion with a bow, a stern and a length, with  
27 power means to move said hull in the water from a first stationary hydrostatic displacement  
28

1 condition to a second subcritical speed displacement regime and to a third faster super critical speed  
2 displacement regime, said submerged portion being further characterized in having:

3  
4 (a) a generally triangular waterplane with apex adjacent said bow and a base adjacent said  
5 stern,

6  
7 (b) a profile with a deeper draft adjacent said bow, the submerged part of said bow being  
8 generally free of depending structures, and a smaller draft adjacent said stern,

9  
10 (c) and with the draft of said stern varying from approximately 4% of said base relative to  
11 a static waterplane in said hydrostatic condition, to substantially zero relative to the water  
12 surface adjacent and downstream of said stern when in said subcritical and super critical  
13 regimes.

14  
15 19. A Transonic Hull having a submerged portion with a bow, a stern and a length, with  
16 power means to move said hull in the water from a first stationary hydrostatic displacement  
17 condition to a second subcritical speed displacement regime and to a third faster super critical speed  
18 displacement regime, said submerged portion being further characterized in having:

19  
20 (a) a generally triangular waterplane with apex adjacent said bow and a base adjacent said  
21 stern,

22  
23 (b) a profile with a deeper draft adjacent said bow and no bulb, and a smaller draft adjacent  
24 said stern,

25  
26 (c) with the center of gravity of a boat incorporating said submerged portion located at a  
27 distance from said stern at least as great as forward approximately 38% of said length of said  
28

1 submerged portion.

2  
3 20. A Transonic Hull having a submerged portion with a bow, a stern and a length, with  
4 power means to move said hull in the water from a first stationary hydrostatic displacement  
5 condition to a second subcritical speed displacement regime and to a third faster super critical speed  
6 displacement regime, said submerged portion being further characterized in having:

7  
8 (a) a generally triangular waterplane, with apex adjacent said bow and a base adjacent said  
9 stern,

10  
11 (b) a profile with a deeper draft adjacent said bow and no bulb, and a smaller draft adjacent  
12 said stern,

13  
14 (c) with said waterplane having a centroid of area, and the boat incorporating said submerged  
15 portion having a center of gravity, with the distance of said center of gravity forward of said  
16 center of area being no less than approximately 5% of said length of said waterplane.

17  
18 21. A wave reducing hull for a vessel comprising:

19  
20 a generally triangular hull having a pointed narrow bow portion and a stern portion having a beam  
21 wider than said bow portion;

22  
23 said hull including generally rectilinear diverging sides extending substantially from said bow to said  
24 stern;

25  
26 said hull having a draft adjacent said bow deeper than the draft adjacent said stern; and  
27